

WHAT IS CLAIMED IS:

1. A method of rapidly depressurizing a mold for curing retreaded or new
5 tires, the mold having an upper platen, a lower platen, and a central rim for sealing the
tire at the beads, the central rim being open to atmospheric pressure at the radially inner
surfaces, the radially outer surfaces in combination with the upper platen and lower
platen forming a toroidal pressure chamber for curing the tire; the method comprising the
steps of:
- 10 providing a frangible member attached and open to the toroidal pressure
chamber through an opening in the central rim; and opening the frangible
member to the atmosphere pressure P_o when the chamber pressure reached a
predetermined pressure P_1 , P_1 being greater than the tire curing pressure P_c .
- 15 2. The method of rapidly depressurizing a mold for curing retread or new
tires of claim 1 wherein the step of opening the frangible member includes the step of
rupturing a portion of the frangible member at the predetermined pressure P_1 .
- 20 3. The method of rapidly depressurizing a mold for curing retread or new
tires further comprises the step of directing the chamber flow exhaust orthogonal relative
to the attachment to the rim.
- 25 4. An improved mold for curing retreaded or new tires, the mold having
an upper platen
a lower platen
a central rim, the central rim having a radially inner surface open to
atmospheric pressure and an exterior surface in combination with the upper
platen and lower platen forming toroidal pressure chamber for curing a tire; the
improved mold being characterized by a frangible member being attached to an
30 opening in the central rim and being connected on a radially inner surface of the
rim, the frangible member opens to atmospheric pressure P_o when the chamber
pressure reaches a predetermined pressure P_1 , P_1 being greater than the tire curing
pressure P_c .

003333 04190
106140 E298E860

5. The improved mold of claim 4 wherein the frangible member has a rupture element breakable at a predetermined pressure P_1 .

5 6. The improved mold of claim 4 wherein the mold is for large off-road tires.

7. The improved mold of claim 4 wherein the frangible member opens at predetermined pressures in the 200 to 250 p.s.i. range.

10

8. The improved mold of claim 4 wherein the frangible member has an exhaust flow diverter for redirecting the flow 90° relative to the path exiting the rim.

9. The improved mold of claim 4 wherein all exhaust flows and centrally
15 directed initially within the central rim.

00000000 041901
106740 22982860